

**Notice of Allowability**

Application No.

09/249,489

Examiner

Mujtaba K. Chaudry

Applicant(s)

KONDO ET AL.

Art Unit

2133

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 08/26/2004.
2. ☒ The allowed claim(s) is/are 1-73,75,76,78-90 and 92-95.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 04/28/2005.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 04/28/2005.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
**GUY LAMARRE**  
**PRIMARY EXAMINER**

### **EXAMINER'S AMENDMENT**

In view of the Appeal Brief filed on August 26, 2004, PROSECUTION IS HEREBY REOPENED. In light of the Examiner interview with the Applicants, newly cited art, arguments submitted in Appeal Brief and the agreed amendments to the claims, the finality of the rejection of the last Office action is withdrawn. An Examiner's amendment along with reasons for allowance is set forth below.

Applicants are reminded that formal drawings with proposed amendments are required. Particularly, Figures 1a, 1c and 12 as submitted on March 10, 2003.

An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Sheryl S. Holloway (408-720-3476) on Thursday, April 28, 2005.

The application has been amended as follows:

**Please amend the claims as follows**

1. (Currently Amended) A method for recovery of lost/damaged data comprising:
  - generating hypotheses for lost/damaged data within a received bitstream of encoded image data, wherein each hypothesis specifies a decoding for the lost/damaged data;
  - generating scores for the hypotheses;
  - selecting a hypothesis corresponding to a best score from the generated scores;
  - decoding only the lost/damaged data according to the selected hypothesis;
  - evaluating at least one other hypothesis and selectively flagging data based upon the evaluation; and
  - executing an error recovery process on the flagged data.
2. (Previously Amended) The method as set forth in claim 1, wherein the evaluating comprises examining at least one score distribution of at least one hypothesis.
3. (Previously Amended) The method as set forth in claim 2, wherein the evaluating comprises comparing the score distribution to a threshold.
4. (Previously Amended) The method as set forth in claim 2, wherein data of the received bitstream of encoded image data is divided into a plurality of block units of varying length, wherein the hypotheses indicate the endpoint of at least one block unit, and the evaluating is performed across at least a portion of the plurality of block units.

Art Unit: 2133

5. (Original) The method as set forth in claim 4, wherein data is flagged for the plurality of blocks.
6. (Original) The method as set forth in claim 4, wherein a block unit is selected from the group consisting of a block or group of blocks.
7. (Original) The method as set forth in claim 4, wherein the block unit is of varying lengths.
8. (Previously Amended) The method as set forth in claim 1, wherein:
  - the received data is divided into a plurality of block units;
  - the selected hypothesis indicating the endpoint of at least one block unit; and
  - the evaluating comprising evaluating combined hypotheses for at least a portion of the plurality of block units.
9. (Previously Amended) The method as set forth in claim 8, wherein the evaluating comprises generating a combined score distribution.
10. (Previously Amended) The method as set forth in claim 9, wherein the evaluating comprises comparing the combined score distribution to a combined threshold.

11. (Previously Amended) The method as set forth in claim 2, wherein the score distribution is determined according to a difference function between values derived from the scores of the hypotheses.

12. (Previously Amended) The method as set forth in claim 2, wherein the score distribution is determined according to the difference between a best score of scores of the hypotheses and a second best score of the scores of the hypotheses.

13. (Previously Amended) The method as set forth in claim 1, wherein the bitstream further comprises data selected from the group consisting of correlated data and audio data.

14. (Previously Amended) The method as set forth in claim 1, wherein the error recovery process comprises a pixel error recovery method.

15. (Previously Amended) The method as set forth in claim 10, wherein the encoded image data is divided into a plurality of blocks and the error recovery process comprises a pixel error recovery process that uses neighboring block information to recover pixel data of flagged data.

16. (Currently Amended) An apparatus for recovery of lost/damaged data comprising:

a data recovery circuit configured to generate hypotheses for lost/damaged data within a received bitstream of encoded image data, wherein each hypothesis specifies a decoding for the lost/damaged data, generate scores for the hypotheses, select a hypotheses corresponding to a

best score from the generated scores and decode only the lost/damaged data according to the selected hypothesis;

an error propagation detection circuit coupled to the data recovery circuit, the error propagation circuit configured to selectively flag data based upon an evaluation of the hypotheses; and

an error recovery circuit coupled to the data recovery circuit and the error propagation detection circuit, the error recovery circuit configured to execute error recovery on the flagged data.

17. (Previously Amended) The apparatus as set forth in claim 16, wherein the error propagation circuit performs an evaluation by examining at least one score distribution corresponding to the hypotheses.

18. (Original) The apparatus as set forth in claim 17, wherein the error propagation circuit performs an evaluation by comparing the score distribution to a threshold.

19. (Previously Amended) The apparatus as set forth in claim 16, wherein the error recovery method comprises a pixel error recovery method.

20. (Previously Amended) The apparatus as set forth in claim 16, wherein encoded image data is divided into blocks and the error recovery method comprises a pixel error recovery method that uses neighboring block information to recover pixel data of flagged data.

21. (Previously Amended) The apparatus as set forth in claim 17, wherein received data is divided into a plurality of block units, the hypotheses indicating the endpoint of at least one block unit, the score distribution assembled across at least a portion of the plurality of block units.

22. (Original) The apparatus as set forth in claim 21, wherein the error propagation detection circuit flags the data in the plurality of blocks for which an error recovery method is required.

23. (Original) The apparatus as set forth in claim 21, wherein a block unit is selected from the group consisting of a block or group of blocks.

24. (Previously Amended) The apparatus as set forth in claim 21, wherein the received data is divided into a plurality of block units, the selected hypothesis indicating the endpoint of at least one block unit and the evaluation comprising an evaluation of combined hypotheses for at least a portion of the plurality of block units.

25. (Original) The apparatus as set forth in claim 24, wherein the evaluation comprises a combined score distribution using score distributions corresponding to at least a portion of the plurality of block units.

Art Unit: 2133

26. (Original) The apparatus as set forth in claim 25, wherein the evaluation further comprises a comparison of the combined score distribution to a combined threshold.

27. (Previously Amended) The apparatus as set forth in claim 17, wherein the score distribution is determined according to the difference between a best score of scores of the hypotheses and a second best score of the scores of hypotheses.

28. (Previously Amended) The apparatus as set forth in claim 16, wherein the bitstream further comprises data selected from the group consisting of correlated data and audio data.

29. (Original) The apparatus as set forth in claim 16, wherein the data recovery circuit and error propagation detection circuit comprises circuitry selected from the group consisting of logic circuits and a processor.

30. (Currently Amended) A computer readable medium comprising instructions, which when executed in a processing system, cause the system to perform data recovery of lost/damaged data, comprising:

generating hypotheses for lost/damaged data within a received bitstream of encoded image data, wherein each hypothesis specifies a decoding for the lost/damaged data;

generating scores for the hypotheses;

selecting a hypothesis corresponding to a best score from the generated scores;

decoding only the lost/damaged data according to the selected hypothesis;



Art Unit: 2133

evaluating the hypotheses and selectively flagging data based upon the evaluation; and  
executing an error recovery process on the flagged data.

31. (Previously Amended) The computer readable medium as set forth in claim 30, wherein evaluating comprises examining at least one score distribution of at least one hypothesis.

32. (Original) The computer readable medium as set forth in claim 31, wherein evaluating comprises comparing the score distribution to a threshold.

33. (Previously Amended) The computer readable medium as set forth in claim 30, wherein the data of the received bitstream of data is divided into a plurality of block units of varying length, the hypotheses indicate the endpoint of at least one block unit, and the evaluating is performed across at least a portion of the plurality of block units.

34. (Original) The computer readable medium as set forth in claim 33, wherein data is flagged for the plurality of blocks.

35. (Original) The computer readable medium as set forth in claim 33, wherein a block unit is selected from the group consisting of a block or group of blocks.

36. (Previously Amended) The computer readable medium as set forth in claim 30, wherein:  
the received data is divided into a plurality of block units;

Art Unit: 2133

the selected hypothesis indicating the endpoint of at least one block unit; and  
the evaluating comprising evaluating combined hypotheses for at least a portion of the plurality of block units.

37. (Previously Amended) The computer readable medium as set forth in claim 36, wherein the evaluating comprises generating a combined score distribution.

38. (Previously Amended) The computer readable medium as set forth in claim 37, wherein the evaluating comprises comparing the combined score distribution to a combined threshold.

39. (Previously Amended) The computer readable medium as set forth in claim 30, wherein the bitstream further comprises data selected from the group consisting of correlated data and audio data.

40. (Currently Amended) An apparatus for recovery of lost/damaged data comprising:

means for generating hypotheses for lost/damaged data within a received bitstream of encoded image data, wherein each hypothesis specifies a decoding for the lost/damaged data;

means for generating scores for the hypotheses;

means for selecting a hypothesis corresponding to a best score from the generated scores;

means for decoding only the lost/damaged data according to the selected hypothesis;

means for evaluating the hypotheses and selectively flagging data based upon the evaluation; and

means for executing an error recovery process on the flagged data.

41. (Currently Amended) A method for recovery of data comprising:

generating hypotheses for lost/damaged data within a received bitstream of encoded image data, wherein each hypothesis specifies a decoding for the lost/damaged data;

assembling at least one score distribution using the hypotheses; and

selectively flagging data that an error recovery method is required for based upon the score distribution.

42. (Previously Amended) The method as set forth in claim 41, wherein data of the received bitstream of encoded image data is divided into a plurality of block units of varying length, the hypotheses indicate the endpoint of at least one block unit, and the score distribution is assembled across at least a portion of the plurality of block units.

43. (Previously Amended) The method as set forth in claim 42, wherein the flagging selectively flags the data in the plurality of blocks for which an error recovery method is required.

44. (Previously Amended) The method as set forth in claim 42, wherein a block unit is selected from the group consisting of a block or group of blocks.

45. (Previously Amended) The method as set forth in claim 41, wherein the received data is divided into a plurality of block units, the hypotheses indicate the endpoint of at least one block

Art Unit: 2133

unit, the assembling comprising if a score distribution for a block unit of the plurality of block units is within a range defined by an individual threshold, generating a combined score distribution of the score distributions for at least a portion of the plurality of block units; and the flagging comprising if the combined score distribution is within a range defined by a combined threshold, flagging that an error recovery method is required for the at least a portion of the plurality of block units.

46. (Previously Amended) The method as set forth in claim 41, wherein the score distribution is determined according to a difference function between values derived from the scores of the hypotheses.

47. (Previously Amended) The method as set forth in claim 41, wherein the score distribution is determined according to the difference between a best score of scores of the hypotheses and a second best score of the scores of hypotheses.

48. (Previously Amended) The method as set forth in claim 41, wherein the bitstream further comprises data selected from the group consisting of correlated data and audio data.

49. (Previously Amended) The method as set forth in claim 41, further comprising the performing an error recovery method for flagged data.

Art Unit: 2133

50. (Previously Amended) The method as set forth in claim 49, wherein the error recovery method comprises a pixel error recovery method.

51. (Previously Amended) The method as set forth in claim 49, wherein the encoded image data is divided into a plurality of blocks and the error recovery method comprises a pixel recovery method that uses neighboring block information to recover pixel data of flagged data.

52. (Currently Amended) An apparatus for recovery of data comprising:

a data recovery circuit configured to generate hypotheses for lost/damaged data within a received bitstream of encoded image data and assemble at least one score distribution using the hypotheses, wherein each hypothesis specifies a decoding for the lost/damaged data; and

an error propagation detection circuit coupled to the data recovery circuit, the error propagation detection circuit configured to selectively flag data that an error recovery method is required for based upon the score distribution.

53. (Original) The apparatus as set forth in claim 52, further comprising an error recovery circuit coupled to the error propagation detection circuit, the error recovery circuit configured to generate an error recovery method for flagged data.

54. (Previously Amended) The apparatus as set forth in claim 53, wherein the error recovery method comprises a pixel error recovery method.

55. (Previously Amended) The apparatus as set forth in claim 53, wherein the encoded image data is divided into blocks and the error recovery method comprises a pixel error recovery method that uses neighboring block information to recover pixel data of flagged data.

56. (Previously Amended) The apparatus as set forth in claim 53, wherein received data is divided into a plurality of block units of varying length, the hypotheses indicating the endpoint of at least one block unit, the score distribution assembled across the plurality of block units.

57. (Original) The apparatus as set forth in claim 56, wherein the error propagation detection circuit flags the data in the plurality of blocks for which an error recovery method is required.

58. (Previously Amended) The apparatus as set forth in claim 52, wherein received data is divided into a plurality of block units, the hypotheses indicating the endpoint of at least one block unit, the error propagation detection circuit further configured to:

generate a combined score distribution of the score distributions for at least a portion of the plurality of block units if a score distribution for a block unit of the plurality of block units is within a range defined by an individual threshold; and

selectively flag that an error recovery method is required for the at least a portion of the plurality of block units if the combined score distribution is within a range defined by a combined threshold.

59. (Previously Amended) The apparatus as set forth in claim 52, wherein the score distribution is determined according to a difference function between values derived from the scores of the hypotheses.

60. (Previously Amended) The apparatus as set forth in claim 52, wherein the score distribution is determined according to the difference between a best score of scores of the hypotheses and a second best score of the scores of hypotheses.

61. (Previously Amended) The apparatus as set forth in claim 52, wherein the bitstream further comprises data selected from the group consisting of correlated data and audio data.

62. (Original) The apparatus as set forth in claim 52, wherein the data recovery circuit and error propagation detection circuit comprises circuitry selected from the group consisting of logic circuits and a processor.

63. (Currently Amended) A computer readable medium comprising instructions, which when executed in a processing system, causes the system to perform recovery of data, comprising:

generating hypotheses for lost/damaged data within received encoded image data,  
wherein each hypothesis specifies a decoding for the lost/damaged data;

assembling at least one score distribution using at least one other hypothesis; and

selectively flagging data that an error recovery method is required ~~for~~-based upon the score distribution.

64. (Previously Amended) The computer readable medium as set forth in claim 63, wherein the received encoded image data is divided into a plurality of block units of varying length, the hypotheses indicating the endpoint of at least one block unit, the score distribution assembled across the plurality of block units.

65. (Original) The computer readable medium as set forth in claim 64, wherein the instruction that, when executed, flags an error recovery method for the data flags an error recovery method for the plurality of blocks.

66. (Previously Amended) The computer readable medium as set forth in claim 63, wherein the received encoded image data is divided into a plurality of block units of varying lengths, the hypotheses indicating the endpoint of at least one block unit, the instruction, which when executed assembles a score distribution, comprises if a score distribution for a block unit of the plurality of block units is within a range defined by an individual threshold, generating a combined score distribution of the score distributions for at least a portion of the plurality of block units; and the instruction, which when executed flags data, comprises if the combined score distribution is within a range defined by a combined threshold, flagging that an error recovery method is required for the at least a portion of the plurality of block units.



Art Unit: 2133

67. (Previously Amended) The computer readable medium as set forth in claim 63, wherein the score distribution is determined according to a difference function between values derived from the scores of the hypotheses.

68. (Previously Amended) The computer readable medium as set forth in claim 63, wherein the bitstream further comprises data selected from the group consisting of correlated data and audio data.

69. (Original) The computer readable medium as set forth in claim 63, further comprising instructions which, when executed, comprise performing an error recovery method for flagged data.

70. (Previously Amended) The computer readable medium as set forth in claim 69, wherein the error recovery method comprises a pixel error recovery method.

71. (Currently Amended) An apparatus for recovery of data comprising:

means for generating hypotheses for lost/damaged data in encoded image data, wherein each hypothesis specifies a decoding for the lost/damaged data;

means for assembling at least one score distribution using at least one hypothesis; and

means for selectively flagging that an error recovery method is required based upon the score distribution.

Art Unit: 2133

72. (Currently Amended) A method for recovery of data from a bitstream of encoded image data comprising:

generating hypotheses for lost/damaged data within the bitstream, wherein each hypothesis specifies a decoding for the lost/damaged data;

assembling a score distribution using the hypotheses;

detecting errors in data due to error propagation within the bitstream of encoded image data if the score distribution is within a range defined by a threshold; and

performing a data error recovery process on data with detected errors.

73. (Previously Amended) The method as set forth in claim 72, wherein the bitstream further comprises data selected from the group consisting of correlated data and audio data.

74. (Cancelled)

75. (Previously Amended) The method as set forth in claim 72, wherein the performing a data error recovery process on data comprises using a pixel error recovery process.

76. (Original) The method as set forth in claim 75, wherein the pixel error recovery process comprises a classified adaptive pixel error recovery process.

77. (Cancelled)

Art Unit: 2133

78. (Previously Amended) The method as set forth in claim 72, further comprising the receiving error flags indicative of errors with respect to data of the bitstream, said performing a data error recovery process further comprising performing the data error recovery process on the data corresponding to received error flags.

79. (Previously Amended) The method as set forth in claim 72, wherein the performing a data error recovery process is performed on at least one block unit of data.

80. (Previously Amended) The method as set forth in claim 72, further comprising:

decoding at least a portion of the bitstream of encoded image data;

preventing data degradation by performing a block unit recovery process on the decoded data in block units in which errors due to error propagation are detected, said preventing performed prior to the performing a data error recovery process.

81. (Currently Amended) An apparatus for recovery of data from a bitstream of encoded image data comprising:

a data recovery circuit configured to generate hypotheses for lost/damaged data within a received bitstream of encoded image data, wherein each hypothesis specifies a decoding for the lost/damaged data;

an error propagation detection circuit coupled to the data recovery circuit, said error propagation detection circuit configured to detect errors in data due to error propagation within the bitstream of data; and

an error recovery circuit coupled to the error propagation detection circuit, the error recovery circuit configured to perform a data error recovery process on data with detected errors.

82. (Previously Amended) The apparatus as set forth in claim 81, wherein the bitstream further comprises data selected from the group consisting of correlated data and audio data.

83. (Previously Amended) The apparatus as set forth in claim 81, wherein the error propagation detection circuit generates hypotheses for lost/damaged data within the received bitstream of encoded image data, assembles a score distribution using hypotheses, and detects an error if the score distribution is within a range defined by a threshold.

84. (Previously Amended) The apparatus as set forth in claim 81, wherein the error recovery circuit uses a pixel error recovery process.

85. (Original) The apparatus as set forth in claim 84, wherein the error recovery circuit uses a classified adaptive pixel error recovery process.

86. (Original) The apparatus as set forth in claim 81, further comprising a pixel error flag circuit configured to receive error flags indicative of errors with respect to data of the bitstream, said error recovery circuit further configured to performing error recovery on the data corresponding to received error flags.

Art Unit: 2133

87. (Original) The apparatus as set forth in claim 81, wherein the error recovery circuit performs error recovery on at least one block of data.

88. (Previously Amended) The apparatus as set forth in claim 81, further comprising:

a decoder coupled to receive and decode at least a portion of the bitstream of encoded image data;

a data degradation prevention unit coupled to the decoder and the error propagation detection circuit and configured to perform a block unit recovery process on the decoded data in block units in which errors due to error propagation are detected.

89. (Currently Amended) A computer readable medium comprising instructions, which when executed in a processing system, causes the system to perform recovery of data, comprising:

generating hypotheses for lost/damaged data within the bitstream, wherein each hypothesis specifies a decoding for the lost/damaged data;

assembling a score distribution using the hypotheses;

detecting errors in data due to error propagation within a bitstream of encoded image data if the score distribution is within a range defined by a threshold; and

performing a data error recovery process on data with detected errors.

90. (Previously Amended) The computer readable medium as set forth in claim 89, wherein the bitstream further comprises data selected from the group consisting of correlated data and audio data.

91. (Cancelled)

92. (Previously Amended) The computer readable medium as set forth in claim 89, wherein performing a data error recovery process on data comprises using a pixel error recovery process.

93. (Original) The computer readable medium as set forth in claim 89, further comprising instructions, which when executed performing a process comprising receiving error flags indicative of errors with respect to data of the bitstream, the instructions which when executed perform a data error recovery process further comprising performing the data error recovery process on the data corresponding to received error flags.

94. (Original) The computer readable medium as set forth in claim 89, wherein a data error recovery process is applied to at least one block unit of data.

95. (Previously Amended) The computer readable medium as set forth in claim 94, further comprising instructions, which when executed, perform a process comprising:

decoding at least a portion of the bitstream of encoded image data;

preventing data degradation by performing a block unit recovery process on the decoded data in block units in which errors due to error propagation are detected, preventing performed prior to performing a data error recovery process.

Art Unit: 2133

96. (Cancelled)

**Reasons for Allowance**

Claims 1-73, 75, 76, 78-90 and 92-95 are allowed. The following are the reasons for allowance:

Independent claim 1 of the present application teaches a method for recovering lost/damaged data by generating hypotheses for the lost/damaged data within a received bitstream of encoded image data, wherein each hypotheses specifies a decoding for lost/damaged data. Scores are generated for the hypotheses and the one with the best score is selected. Decoding only of the lost/damaged data is performed according to the selected hypotheses. Another hypothesis is also then evaluated and selective data is flagged base on the flags on which error recovery process is performed. The prior art of record, namely Dent, teaches (abstract) a communication system wherein a message to be transmitted is used to generate an error detection checkword. Both the message and checkword are encoded into a communication traffic signal using an error correction code. An error correction decoder decodes a received traffic signal, generating a plurality of candidate decoded signals and quantitative measurements of the reliability of the candidates. An error detection calculator tests the most reliable candidate for compliance between its decoded message and checkword. If there is compliance, that candidate and its decoded message are selected. If there is no compliance, the next most reliable candidate is tested for compliance, the selection process continuing until compliance is found. If no compliance is found among all the candidates, an error corrector scrutinizes the most reliable candidate for the presence of a correctable error, and the corrected candidate is re-tested for

Art Unit: 2133

compliance. If there is still no compliance, the next most reliable candidate is scrutinized for the presence of a correctable error, and the corrected candidate is retested for compliance, the process continuing until compliance is found, up to the limits of the error correction capability of the error corrector. However, none of the prior arts of record teach or fairly suggest the step of generating hypotheses for lost/damaged data within a received bitstream of encoded image data, wherein each hypothesis specifies a decoding only for the lost/damaged data. Therefore, claim 1 of the present application is allowable over the prior arts of record.

Independent claims 16, 30, 40, 41, 52, 63, 71, 72, 81 and 89 include similar limitation as those found in independent claim 1 and therefore are allowable for similar reasons.

Dependent claims 2-15, 17-29, 31-39, 42-51, 53-62, 64-70, 73, 75, 76, 78-80, 82-88, 90, and 92-95 depend from allowable independent claims and therefore are allowable as well.

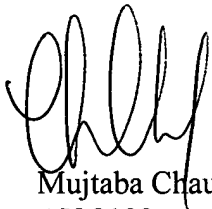
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mujtaba K. Chaudry whose telephone number is 571-272-3817. The examiner can normally be reached on Mon-Thur 7:30 - 4:30 pm & 2nd and 4th Fri 8-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on 571-272-3819. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



Art Unit: 2133

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mujtaba Chaudry

AU 2133

April 28, 2005



GUY LAMARRE  
PRIMARY EXAMINER